THE NEWS LETTER
OF THE
BUREAU OF PUBLIC ROADS

VOL. 2, NO. 4 FEBRUARY, 1927 A. C. ROSE, EDITOR

CONTENTS

MINUTES OF THE RESEARCH COMMITTEE
(NOT FOR RELEASE)

THE FOLLOWING MINUTES OF THE RESEARCH COMMITTEE WITH RESPECT TO THE CONDUCT OF RESEARCH WORK AND PUBLICATION OF THE RESULTS THEREOF HAVE BEEN APPROVED BY THE CHIEF OF BUREAU AND ARE EFFECTIVE MARCH 1, 1927.

MINUTE 1.

SEVEN COMPLETE AND FINAL COPIES OF ALL REPORTS OF RESEARCH OR PAPERS PREPARED FOR OUTSIDE PUBLICATION ARE REQUIRED FOR CONSIDERATION BY THE RESEARCH COMMITTEE. THE SEVEN COPIES SHALL BE DELIVERED TO THE CHAIRMAN OF THE RESEARCH COMMITTEE FOR CONSIDERATION BY THE COMMITTEE.

MINUTE 2.

NO NEW RESEARCH PROJECT SHALL BE UNDERTAKEN UNTIL THE PROJECT HAS BEEN CONSIDERED BY THE RESEARCH COMMITTEE AND APPROVED BY THE CHIEF OF BUREAU. TO FACILITATE CONSIDERATION, A STATEMENT DESCRIBING THE PROPOSED PROJECT SHALL BE SUBMITTED TO THE CHAIRMAN OF THE RESEARCH COMMITTEE. UPON APPROVAL BY THE RESEARCH COMMITTEE THERE WILL BE ADDED TO THE STATEMENT A NOTATION OF THE DATES UPON WHICH PROGRESS REPORTS WILL BE REQUIRED, AND A BUDGET SYMBOL NUMBER. THE STATEMENT WITH THE ABOVE NOTATIONS, WHEN APPROVED BY THE CHIEF OF BUREAU, WILL CONSTITUTE AUTHORITY FOR THE CONDUCT OF THE PROJECT AND WILL BE FILED AS THE INITIAL RECORD OF THE PROJECT. THE FORM OF STATEMENT REQUIRED IS AS FOLLOWS:

BUREAU: (NAME OF BUREAU)

BUREAU PROJECT NO: _____

APPROPRIATION SYMBOL: (TO BE INSERTED BY THE RESEARCH COMMITTEE)

PROGRESS REPORTS REQUIRED: (HERE THE DATES WHEN PROGRESS REPORTS WILL BE REQUIRED WILL BE INSERTED WHEN THE PROJECT HAS BEEN APPROVED)

TITLE: (SHOULD BE SHORT AND CLEARLY INDICATIVE OF THE WORK COVERED)

LEADERS: (NAME OF LEADER, AND PRINCIPAL ASSISTANTS IF ANY)

OBJECTS: (STATE BRIEFLY AND CLEARLY THE OBJECTS OF THE WORK.)

PROCEDURE: (HERE THE METHOD OF APPROACHING THE PROBLEM DEFINED UNDER "OBJECTS" SHOULD BE CONCISELY SET FORTH. WHERE PRACTICABLE, OUTLINE THE PLAN FOR THE ENTIRE PERIOD OF TIME REQUIRED TO COMPLETE THE WORK)

COOPERATION: (INDICATE COOPERATIVE RELATIONS WITH OTHER DEPARTMENTS, BUREAUS, DIVISIONS, EXPERIMENT STATIONS, OTHER ORGANIZATIONS, OR WITH PRIVATE PARTIES)

LOCATION: (TOWN, COUNTY AND STATE, WHERE PRACTICABLE)

LEGAL AUTHORITY: (TITLE OF THE GENERAL APPROPRIATION AND LANGUAGE OF THE SPECIFIC CLAUSE OF THE APPROPRIATION OR SUB-APPROPRIATION FROM WHICH TO BE PAID)

PROPOSED EXPENDITURES: (ESTIMATED COST FOR CURRENT FISCAL YEAR; AND, IF PRACTICABLE, APPROXIMATE COST OF PROJECT CARRIED TO COMPLETION)

HISTORY: (STATE BRIEFLY)

DATE EFFECTIVE: (DATE ON WHICH IT IS PROPOSED THAT WORK ON PROJECT SHALL BEGIN)

MINUTE 3.

NEW OR UNPUBLISHED RESEARCH DATA WILL NOT BE USED IN ANY ADDRESS, LECTURE, PAPER, OR COMMITTEE REPORT WITHOUT PRIOR APPROVAL OF THE CHIEF OF BUREAU. AN OUTLINE OF THE NEW OR UNPUBLISHED MATERIAL IT IS DESIRED TO USE MUST BE SUBMITTED TO THE CHAIRMAN OF THE RESEARCH COMMITTEE FOR CONSIDERATION BY THE COMMITTEE AND RECOMMENDATION TO THE CHIEF OF BUREAU.

MATERIAL WHICH HAS BEEN PUBLISHED OR OTHERWISE RELEASED MAY BE USED IN ANY ADDRESS, LECTURE, PAPER, OR COMMITTEE REPORT WITHOUT PRIOR APPROVAL.

A COPY OF ALL PAPERS BY BUREAU EMPLOYEES MUST BE FURNISHED TO THE WASHINGTON OFFICE FOR INFORMATION AND FILING.

MINUTE 4.

TO SECURE AUTHORITY FOR THE OUTSIDE PUBLICATION OF ANY BOOK OR ARTICLE, EMPLOYEES OF THE BUREAU WILL BE REQUIRED:

1. TO CONFORM TO THE REQUIREMENTS OF THE ADMINISTRATIVE REGULATIONS OF THE DEPARTMENT OF AGRICULTURE, PAR. 604.

2. TO GIVE CREDIT FOR ALL MATERIAL BASED ON THE WORK OF THE BUREAU.

3. TO ASSUME PERSONAL RESPONSIBILITY FOR MATTERS OF OPINION, COMMENT AND PERSONAL CONCLUSIONS. IN BOOKS THIS ASSUMPTION OF PERSONAL RESPONSIBILITY WILL BE CLEARLY INDICATED IN THE PREFACE. IN ARTICLES AN APPROPRIATE STATEMENT WILL BE REQUIRED AT SOME SUITABLE PLACE IN THE TEXT.

4. IT WILL BE DEFINITELY UNDERSTOOD THAT THE BUREAU RESERVES THE RIGHT TO PUBLISH ALL MATERIAL BASED ON THE WORK OF THE BUREAU IN OTHER OR FUTURE BUREAU PUBLICATIONS.


TRAFFIC SURVEYS
FUTURE MOTOR VEHICLE REGISTRATION CAN BE PREDICTED
And as traffic increases with registration
the future traffic on the roads can be estimated
A highway department without a traffic survey is like a ship without a compass
A traffic survey is needed
To budget expenditures
To program constructs
Field Survey Station
Traffic Flow Map
Hollerith-Card Tabulating Machine
COMPARISON OF PRESENT ROAD CONDITION WITH EXPECTED TRAFFIC SHOWS WHERE AND WHEN IMPROVEMENT WILL BE NEEDED
A-Overloaded Gravel Section, B-Unnecessary pavement, C-Well balanced improvement

TERRITORY OF ALASKA DESIGNATED NEW BUREAU DISTRICT II.
(NOT FOR RELEASE)

EFFECTIVE MARCH 1, 1927, THE TERRITORY OF ALASKA HAS BEEN DESIGNATED AS THE NEW DISTRICT II OF THE BUREAU. MR. M. D. WILLIAMS HAS BEEN APPOINTED ACTING DISTRICT ENGINEER. THE ARRANGEMENT HAS BEEN MADE IN VIEW OF THE AGREEMENT REACHED BETWEEN GOVERNOR PARKS, THE FOREST SERVICE, AND THE BUREAU, TO PROVIDE FOR A CAREFUL SURVEY OF THE HIGHWAY NEEDS IN THOSE PORTIONS OF ALASKA WHICH ARE LOCATED WITHIN AND ADJACENT TO THE NATIONAL FORESTS. IT IS BELIEVED THAT THE AGREEMENT AND CONSEQUENT PROGRAM WILL BE FACILITATED BY THE ESTABLISHMENT OF ALASKA AS A SEPARATE ADMINISTRATIVE DISTRICT.

THE PROPOSED AGREEMENT COVERS THE INVESTIGATION OF THE NECESSITY AND DESIRABILITY OF BUILDING LOW-TYPE ROADS IN SOUTHEASTERN ALASKA TO TAP THE MINERALIZED AREA OR DIKE RUNNING NORTHWEST FROM HYDER AND PARALLEL TO THE CANADIAN BOUNDARY. THIS REGION AT THE PRESENT TIME IS INACCESSIBLE EVEN TO PROSPECTORS, AND LOW-TYPE ROADS INTO THIS TERRITORY WOULD APPARENTLY OPEN IT UP AND PERMIT THE DEVELOPMENT OF ANY MINERALIZED AREAS, FOREST RESOURCES, WATER-POWER SITES, OR OTHER POSSIBILITIES THERE MAY BE IN THIS SECTION. THESE LOW-TYPE ROADS COULD BE AFTERWARDS IMPROVED TO HIGHER TYPES, THE IDEA BEING TO LOCATE THEM NOW AS NEARLY AS POSSIBLE ON THE PROPER LINE AND GRADE.

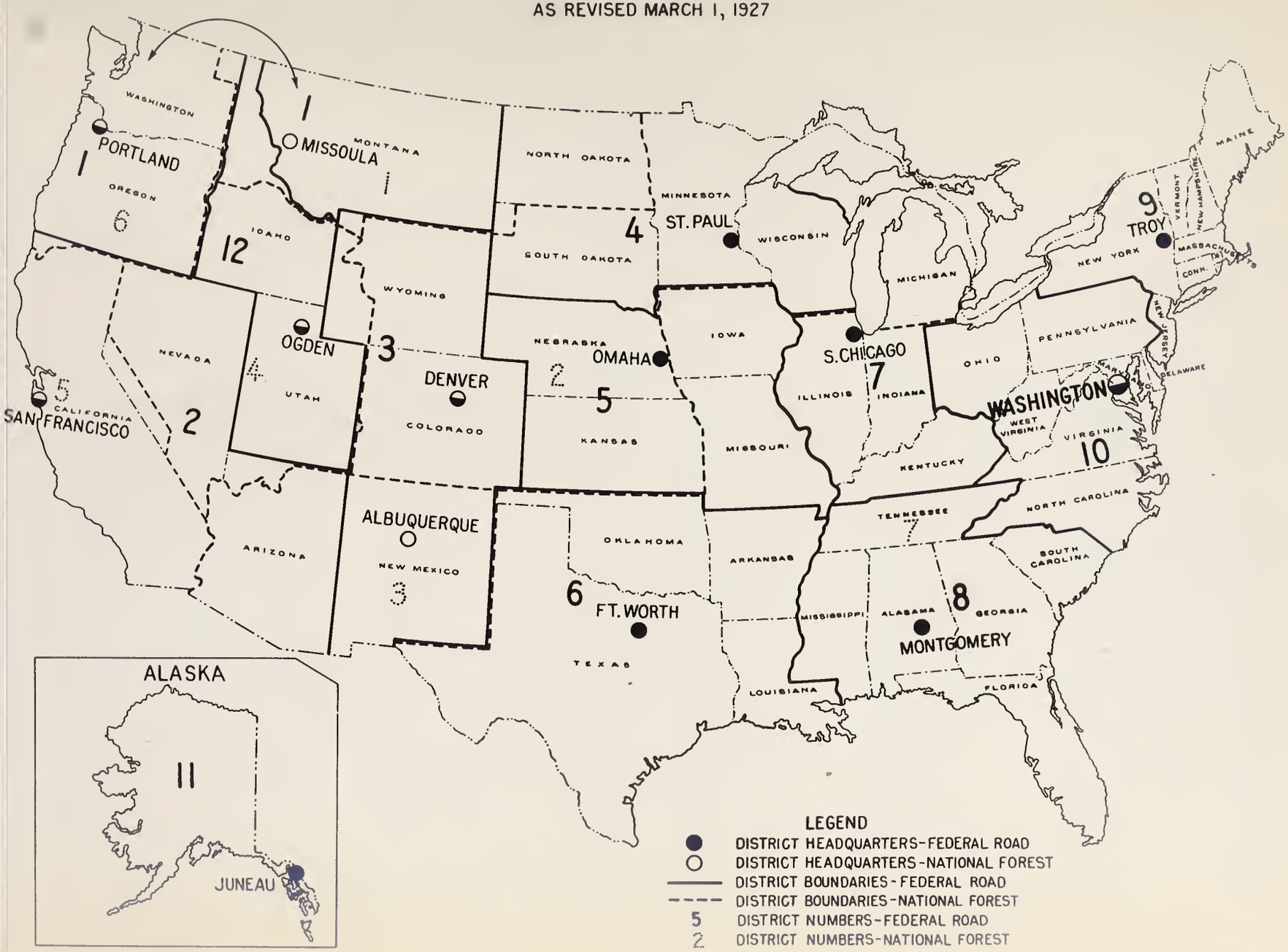
WHILE IT WILL NOT BE POSSIBLE TO DETERMINE DEFINITELY THAT SUCH LOW-TYPE ROADS WILL NECESSARILY BE IMPROVED TO HIGHER STANDARDS, ONLY THOSE WILL BE UNDERTAKEN IN WHICH THE DEFINITE POSSIBILITIES INDICATE THE PROBABILITY OF A DEVELOPMENT TO HIGHER STANDARDS. IT IS BELIEVED THAT FOR THE MOST PART SUCH ROADS CAN BE LOCATED SO THAT FUTURE WORK WILL BE ACCUMULATIVE, BUT EVEN WHERE IT IS NECESSARY TO ABANDON IN PART THE ORIGINAL ROAD, IT WILL STILL BE USED AS THE PIONEER ROAD DURING CONSTRUCTION, WHICH, UNDER SUCH CONDITIONS, IS A VERY NECESSARY PART OF SUCH CONSTRUCTION.

TO OBTAIN A COMPREHENSIVE REPORT, A COMMITTEE COMPOSED OF MR. FLORY, REPRESENTING THE FOREST SERVICE, MR. WILLIAMS, REPRESENTING THE BUREAU, AND MR. SOMMERS, REPRESENTING THE TERRITORY, IS AUTHORIZED TO MAKE A COMPLETE INVESTIGATION BY PRELIMINARY SURVEYS, OR AT LEAST BY SURVEYS SOMEWHAT BETTER THAN RECONNAISSANCE SURVEYS.

AFTER THE SURVEYS HAVE BEEN COMPLETED THE COMMITTEE IS TO REPORT TO THE FOREST SERVICE AND TO THE BUREAU COVERING THE RESULTS OF THEIR INVESTIGATIONS, WITH THEIR RECOMMENDATIONS. IT IS THOUGHT THAT THESE ROADS CAN BE BUILT FROM FOREST HIGHWAY FUNDS WHEN CONSTRUCTED.

FEDERAL ROAD AND NATIONAL FOREST DISTRICTS AND HEADQUARTERS

AS REVISED MARCH 1, 1927



United States Department of Agriculture
Bureau of Public Roads

B.P.R.-F.A.-A-1
M- Jan. 1927 -A

Status of Current Federal Aid Road Work

For the Fiscal Year Ending June 30, 1927

As of January 31, 1927

States	Balance of Federal Aid Fund Available for New Projects	* Under Construction			Approved for Construction			Amount Paid States During Fiscal Year	Completed and Paid During Fiscal Year			Agreements Now in Force			P.&.E. Recommended by Approval by District Engineer			States
		Federal Aid	Miles Original	Miles Stage	Federal Aid	Miles Original	Miles Stage		Federal Aid	Miles Original	Miles Stage	Federal Aid	Miles Original	Miles Stage	Federal Aid	Miles Original	Miles Stage	
Alabama	$ 3,505,535.93	$ 2,604,130.30	296.7		$ 70,909.93	13.3		$ 716,395.78	$ 989,114.85	101.9	4.6	$ 2,436,647.14	270.6		$ 238,392.09	39.4		Alabama
Arizona	3,522,657.35	919,184.58	75.9		16,607.49			391,004.12	352,011.23	36.8		919,184.58	75.9		16,607.49			Arizona
Arkansas	1,990,529.14	1,815,344.33	248.5		716,201.88	95.2		703,991.88	905,926.30	116.6		2,164,649.40	282.4		366,896.81	61.3		Arkansas
California	4,438,159.58	4,404,837.95	194.2	0.4	167,114.97	8.4		1,887,867.44	2,542,537.22	171.4	17.3	3,853,251.39	170.1	0.4	719,701.53	32.5		California
Colorado	3,030,377.58	2,878,868.76	266.8	9.2	143,620.34	20.1		836,043.14	522,177.14	37.9		2,697,120.07	254.7	9.2	325,359.03	32.2		Colorado
Connecticut	879,063.51	1,580,996.95	70.4					534,239.10	245,719.74	13.7		1,444,212.28	69.6		136,784.67	0.8		Connecticut
Delaware	276,394.35	241,755.90	17.6		87,799.94	7.1		316,654.52	452,067.18	28.0		218,310.90	15.0		111,244.94	9.7		Delaware
Florida	1,654,358.39	4,040,758.40	229.1	24.8	415,082.24	24.7		694,471.40	1,049,833.65	62.7		3,795,525.05	227.2	11.8	670,316.59	25.6	13.0	Florida
Georgia	1,970,592.77	4,573,997.15	406.0	104.5	99,680.23	4.4	7.2	1,690,638.09	2,102,653.99	265.7	25.6	4,581,629.59	410.4	104.5	92,047.79		7.2	Georgia
Idaho	1,135,473.52	1,291,376.25	162.5	15.7	130,082.19	13.0	0.1	1,011,245.95	1,055,775.24	102.9	12.9	1,129,969.67	156.4	6.6	291,488.87	19.1	9.2	Idaho
Illinois	6,195,447.50	4,668,106.54	347.8		325,680.26	24.1		1,990,981.02	1,177,396.96	81.9	2.0	4,767,226.99	365.6		225,559.91	15.3		Illinois
Indiana	2,530,165.97	7,590,742.41	456.4	11.6				1,716,006.35	1,738,093.43	116.9		7,474,166.31	448.3	11.6	116,677.10	8.1		Indiana
Iowa	433,649.95	5,765,995.30	618.0	218.6	1,683,798.77	94.5	49.2	1,919,841.45	1,720,815.87	233.3	48.3	6,541,299.87	674.6	235.3	1,908,494.20	37.9	32.5	Iowa
Kansas	1,981,011.73	5,284,820.81	721.3	4.0	883,972.21	93.4	4.6	1,584,376.78	792,649.00	142.7		6,296,265.56	740.9	5.0	872,527.46	73.8	3.5	Kansas
Kentucky	1,514,108.21	3,602,991.90	357.3	48.7	229,167.79	26.6		1,163,986.38	692,505.85	78.0	14.6	3,800,786.99	376.3	48.7	31,273.90	6.6		Kentucky
Louisiana	1,242,103.57	2,307,333.02	220.6		197,677.90	11.2		633,910.63	393,961.22	31.9		2,133,032.59	208.8		371,978.33	23.0		Louisiana
Maine	1,419,891.85	951,262.17	73.9		43,956.00	5.6		763,150.41	538,004.58	43.5		996,218.17	79.5					Maine
Maryland	538,929.73	640,064.42	64.2					401,555.07	158,190.63	24.2		605,754.42	62.9		33,310.00	1.3		Maryland
Massachusetts	2,627,170.61	1,493,354.92	78.1		308,090.10	20.7		74,025.25	121,949.75	5.1		1,609,436.02	86.7		182,010.00	12.1		Massachusetts
Michigan	3,437,064.98	6,461,572.97	403.9	38.3	218,610.00	14.6		2,145,140.75	612,755.75	43.1		6,394,582.97	399.4	38.3	285,600.00	19.0		Michigan
Minnesota	1,563,875.43	775,498.90	212.2	48.8	367,000.00	159.3	54.2	2,473,918.50	3,430,029.11	461.6	111.8	614,800.00	161.7	50.8	617,698.90	219.9	52.2	Minnesota
Mississippi	1,445,585.92	3,995,056.87	406.5		98,312.15	17.3		956,390.07	581,407.96	74.0		3,626,986.74	369.2		456,383.28	54.6		Mississippi
Missouri	1,743,892.45	4,607,458.42	313.0	35.4	899,956.78	106.3	5.6	3,041,520.47	4,204,298.49	284.4	22.9	4,540,170.11	316.0	36.1	967,245.09	103.3	4.9	Missouri
Montana	5,980,299.00	1,363,362.30	130.3	8.2	452,047.21	90.2		787,465.25	857,209.60	82.8	60.1	1,781,375.27	217.6	8.2	24,034.24	2.9		Montana
Nebraska	3,208,222.49	6,182,149.79	1331.4	669.2	203,245.97	40.2	15.0	1,888,045.13	1,152,552.23	268.3	92.6	6,313,778.44	1364.8	674.2	71,617.32	6.8		Nebraska
Nevada	1,140,578.15	1,393,756.26	210.9	32.3				598,772.45	2,078,456.00	246.9	5.1	1,214,269.69	189.2	32.3	179,486.57	22.7		Nevada
New Hampshire	452,377.35	453,490.17	27.3					257,676.53	241,809.85	17.8		452,859.85	27.3		620.32			New Hampshire
New Jersey	945,532.96	855,223.56	55.0		104,910.00	7.0		732,592.69	2,397,022.27	26.0		812,468.56	52.1		147,675.00	9.9		New Jersey
New Mexico	2,321,214.23	2,239,874.76	278.6		235,525.13	9.3		314,120.03	21,877.50	0.6		2,027,582.26	248.6		449,917.63	39.3		New Mexico
New York	7,003,372.69	10,025,600.20	628.6		1,060,797.50	57.6	8.6	3,616,754.20	1,679,684.42	107.6		10,927,105.20	679.2		159,292.50	7.0	3.6	New York
North Carolina	1,714,652.58	2,025,475.48	135.5		238,440.69	20.1		1,383,416.99	2,274,655.41	124.7	37.5	1,930,475.48	127.5		333,440.59	28.1		North Carolina
North Dakota	1,447,246.61	2,517,465.95	676.3	61.3	335,361.42	80.1	87.2	2,128,063.26	1,610,696.24	486.2	362.9	2,698,906.39	739.6	114.9	154,911.98	16.8	33.7	North Dakota
Ohio	4,543,600.55	4,720,402.19	362.9	17.7	542,093.66	17.9		1,943,807.75	1,316,121.47	112.8		4,736,281.34	368.4	17.7	526,214.51	22.3		Ohio
Oklahoma	2,029,084.14	1,511,084.32	201.1	20.9	558,021.83	90.3	16.9	999,766.14	553,488.56	47.0	7.1	1,807,738.01	235.7	29.1	261,369.14	55.7	7.7	Oklahoma
Oregon	1,033,065.19	1,816,407.15	127.8	23.5	215,220.95	12.0	12.3	688,712.61	403,640.92	23.7		1,823,407.15	139.5	28.9	208,220.95	0.2	5.9	Oregon
Pennsylvania	3,445,515.01	8,442,326.00	591.6		1,008,481.91	59.3		1,674,597.76	216,460.04	14.6		9,198,285.92	639.9		252,520.99	11.0		Pennsylvania
Rhode Island	754,974.34	531,795.00	35.5		74,175.00	4.9		360,683.52	113,520.00	7.6		605,970.00	40.4					Rhode Island
South Carolina	1,101,202.75	2,299,639.32	186.7	10.9	42,921.58	10.3		798,154.33	646,425.42	75.3	10.7	2,286,639.32	169.6	10.9	56,921.58	27.4		South Carolina
South Dakota	1,294,131.85	1,734,580.84	610.2	44.9	89,849.69	23.8	56.2	993,008.00	564,464.75	222.7	109.6	1,769,881.63	623.2	77.5	64,549.80	10.8	23.6	South Dakota
Tennessee	1,854,573.86	3,936,708.92	258.8	54.1	80,000.00	7.7		1,690,067.24	747,492.21	49.1	7.9	3,512,982.82	219.1	60.1	503,724.10	47.4	4.0	Tennessee
Texas	5,980,550.91	7,811,296.00	741.2	174.7	1,506,050.36	79.8	87.6	3,209,611.83	2,366,551.01	299.9	27.2	7,662,644.78	705.6	178.1	1,653,701.58	115.4	84.2	Texas
Utah	1,125,625.88	1,262,142.56	129.9		563,860.83	42.7		446,745.59	615,614.05	79.1		1,375,248.61	146.8		450,754.78	26.9		Utah
Vermont	722,771.44	759,594.56	36.5					570,299.43	134,066.49	6.6		759,560.01	36.5		1,034.55			Vermont
Virginia	1,116,585.55	2,452,570.58	158.8		97,966.23	18.6		1,411,869.84	891,387.53	62.5		2,140,187.90	149.7		410,337.91	27.7		Virginia
Washington	1,280,156.05	2,045,600.00	94.9		52,000.00	7.0		916,978.06	116,642.49	8.7		2,020,600.00	86.1		77,000.00	15.8		Washington
West Virginia	840,500.41	2,201,947.66	164.3	12.0	529,950.92	64.8		64,155.60	432,685.36	26.5		2,589,372.07	210.1	12.0	142,425.51	19.0		West Virginia
Wisconsin	4,551,741.89	3,915,680.88	363.0	6.8	32,209.71	2.8		1,709,296.68	416,931.79	45.0	7.8	3,778,464.38	345.6	6.8	169,426.21	20.2		Wisconsin
Wyoming	1,332,725.32	1,251,602.63	135.8	33.7				632,997.42	875,427.00	150.3	32.8	1,251,602.63	135.8	33.7				Wyoming
Hawaii	905,975.35	464,382.64	23.1		98,010.00	6.6		124,275.80	97,440.00	6.5		215,196.18	9.3		347,167.46	20.3		Hawaii
Totals	$107,406,352.71	$146,589,426.94	13936.8	1720.2	$ 15,214,439.56	1610.7	403.6	$ 57,479,187.68	$ 49,111,077.21	6134.8	1021.3	$146,113,095.50	14096.5	1832.6	$ 16,590,771.00	1351.0	291.1	Totals

* Includes Projects reported completed (final vouchers not yet paid) totaling: Federal Aid $45,788,763.54; Miles Original 4098.0; Miles Stage 421.5


STAGE CONSTRUCTION
THERE IS A PLACE IN EVERY TRAFFIC MAP FOR THE INTERMEDIATE SURFACE TYPES - PENETRATION AND SURFACE-TREATED MACADAM
Light Traffic
Heavy Traffic
A CHILD MUST TAKE THE FIRST STEP BEFORE HE LEARNS TO WALK
PROGRESS TOWARD A HIGH-TYPE PAVEMENT BEGINS WITH THE GRAVEL SURFACE
When the traffic grows beyond 600 vehicles a day, the gravel makes a splendid base for a better surface
HARD SURFACES COME HIGH BUT- HEAVY TRAFFIC REQUIRES THEM AND PAYS FOR THEM
Build them over the outgrown low-type surfaces

CONCRETE SEA WALL CONSTRUCTED ON CALIFORNIA FEDERAL AID PROJECT

CONTRIBUTED BY THE DIVISION OF CONSTRUCTION

COMPILED FROM A REPORT SUBMITTED BY JOHN D. SHAW,
HIGHWAY ENGINEER OF DISTRICT 2

AN EXTENSIVE CONCRETE SEA WALL, BACK-FILLED WITH SAND, TO REPLACE AN OLD TIMBER-TRESTLE CAUSEWAY, HAS RECENTLY BEEN COMPLETED ON CALIFORNIA FEDERAL-AID PROJECT 130-A. THIS PROJECT FORMS A PART OF THE COAST HIGHWAY AND EXTENDS FOR A DISTANCE OF 1.39 MILES ALONG THE SHORE OF THE PACIFIC OCEAN WITH THE SOUTHERN PACIFIC RAILROAD TRACKS PARALLELING IT. IT IS SITUATED IN VENTURA COUNTY BETWEEN VENTURA AND SANTA BARBARA.

ORIGINALLY IT WAS PROPOSED TO REPLACE THE THREE SECTIONS OF TIMBER CAUSEWAY BY EARTH EMBANKMENTS PROTECTED FROM EROSION BY CONCRETE SEA WALLS. LATER THE PLANS WERE REVISED AND THE CONTRACT WAS AWARDED FOR THE CONSTRUCTION OF THE NORTHERLY AND SOUTHERLY SECTIONS ONLY (FIGS. 1 AND 2). ALONG THE MIDDLE SECTION THE WAVE ACTION HAD DEPOSITED A SAND BEACH ALMOST TO THE HEIGHT OF THE OLD TRESTLE AND EXTENDING ABOUT 150 FEET OFFSHORE. THE BULK OF THE SAND DEPOSIT ON THE MIDDLE SECTION MADE A SEA WALL SEEM UNNECESSARY (FIG. 3) AND THE STATE AWARDED A CONTRACT FOR THE CONSTRUCTION ON THIS SECTION OF A 30-FOOT CRUSHED ROCK ROADWAY ON A SAND FILL WITH RIPRAPPED SLOPES AND THE NECESSARY CULVERTS, WITHOUT FEDERAL AID (FIG 4).

CONSTRUCTION OF THE TWO SECTIONS OF WALL WAS STARTED ON AUGUST 25, 1924, AND THEY WERE COMPLETED, INCLUDING THE NECESSARY BACK FILLING, ON AUGUST 14, 1926 (FIG. 5). IN THE MEANTIME, BETWEEN FEBRUARY 11 AND 13, 1926, ONE OF THE SEVEREST STORMS ON RECORD OCCURRED ALONG THE COAST BETWEEN SAN FRANCISCO AND SAN DIEGO. AS USUAL THE STORM WAS AT ITS WORST DURING THE PERIOD OF THE HIGHEST TIDES AND IT WAS VERY SEVERE IN THE VICINITY OF THE PROJECT. IT WROUGHT NO PARTICULAR DAMAGE TO THE SECTION OF COMPLETED FEDERAL-AID WALL, ALTHOUGH IT PLAYED HAVOC WITH THE WORK DONE BY THE STATE ON THE MIDDLE SECTION. AFTER THE STORM HAD SPENT ITS STRENGTH, IT WAS FOUND THAT ABOUT ONE-THIRD OF THE FILL BUILT BY THE STATE AND ALL OF THE SAND BEACH PREVIOUSLY DEPOSITED FOR A DISTANCE OF 150 FEET OFFSHORE HAD BEEN WASHED AWAY (FIG. 6). THIS LED THE STATE TO REVERT TO THE ORIGINAL PLAN OF A CONCRETE SEA WALL. WORK ON THE WALL ON THIS MIDDLE SECTION IS NOW IN PROGRESS.

FIGURE 1. - OLD TIMBER-TRESTLE CAUSEWAY ON THE NORTHERLY SECTION OF THE PROJECT.

FIGURE 2. - BIRD'S-EYE VIEW OF THE OLD TIMBER-TRESTLE CAUSEWAY ON THE NORTHERLY END OF THE PROJECT.

FIGURE 3. - THE OLD MIDDLE-SECTION TIMBER-TRESTLE CAUSEWAY AND IN FOREGROUND THE HIGH SAND BEACH DEPOSITED FOR 150 FEET OFFSHORE.

FIGURE 4. - 30-FOOT CRUSHED ROCK ROADWAY ON A SAND FILL BUILT BY THE STATE ON THE MIDDLE SECTION. PICTURE TAKEN BEFORE FILL HAD BEEN WASHED AWAY.

FIGURE 5. - SECTION OF THE COMPLETED WALL, BACK FILLING AND TEMPORARY CRUSHED ROCK SURFACE.

FIGURE 6. - DAMAGE TO STATE-BUILT MIDDLE SECTION DONE BY STORM OF FEBRUARY 11 TO 13, 1926. A WALL IS NOW BEING CONSTRUCTED AT THIS POINT.

FIGURE 7. - END OF WALL SHOWING KEYS AT THE CONSTRUCTION JOINTS. ORNAMENTAL STAIRWAYS FROM THE ROADWAY TO THE BEACH ARE UNDER CONSTRUCTION AT THE ENDS OF THE WALL.

THE OLD WOODEN CAUSEWAY CONSISTED OF THREE TIMBER TRESTLES SUPPORTED BY EUCALYPTUS PILING. THE WORK WAS DONE BY VENTURA COUNTY WITH FUNDS DERIVED PRINCIPALLY FROM LOCAL SUBSCRIPTIONS. PRIOR TO THE CONSTRUCTION OF THESE TRESTLES, PORTIONS OF THE OLD COUNTY ROAD EXTENDED ALONG THE BEACH AND TRAFFIC WAS EITHER DELAYED DURING HIGH TIDES OR CAUSED TO TRAVEL A STEEP, NARROW, WINDING ROAD OVER THE HILLS. THE STATE HIGHWAY COMMISSION TOOK OVER THE MAINTENANCE OF THE TRESTLES AND STRENGTHENED THEM SEVERAL YEARS AGO. THE RAPID INCREASE IN THE TRAFFIC ALONG THE COAST HIGHWAY MADE THE COST OF UPKEEP PROHIBITIVE AND REPLACEMENT OF THE TRESTLES BY A MORE PERMANENT FORM OF IMPROVEMENT BECAME NECESSARY. THE NORTHERN TRESTLE WAS 0.44 MILE LONG; THE MIDDLE ONE 0.08 MILE; AND THE SOUTHERN SECTION 0.87 MILE.

FIGURE 7 ILLUSTRATES THE KEYS PLACED IN THE ENDS OF THE WALL AT CONSTRUCTION JOINTS, AND THE DESIGN OF THE CROSS SECTION OF THE WALL IS SHOWN IN FIGURE 8. THE WIDTH OF THE FOOTING IS ONE-THIRD OF THE HEIGHT PLUS ONE FOOT. THIS MAY APPEAR LIGHT IN COMPARISON WITH OTHER SEA WALLS UNLESS IT IS KNOWN THAT THE FORCE OF LOCAL STORMS IS REDUCED CONSIDERABLY BY A THICK GROWTH OF KELP EXTENDING FOR SOME DISTANCE OFFSHORE. NUMEROUS LARGE CULVERT OPENINGS WERE PLACED IN THE WALL TO MEET SIMILAR OPENINGS UNDER THE RAILROAD. ALTHOUGH THE DRAINAGE AREA IS COMPARATIVELY SMALL, MANY OF THESE CULVERTS ARE REQUIRED TO DISPOSE OF LARGE QUANTITIES OF MUD WHICH SLOUGHS FROM THE EASILY ERODED HILLSIDE ABOVE THE RAILROAD.

THE CONTRACTOR, FOR THE FEDERAL-AID PORTIONS OF THE WALL, ERECTED AN ELABORATE CENTRAL PROPORTIONING AND MIXING PLANT BETWEEN THE TWO SECTIONS AND HAULED THE CONCRETE ON AN INDUSTRIAL RAILWAY. A BULKHEAD, TO PROTECT THE WALL DURING CONSTRUCTION, WAS BUILT ON THE OCEAN SIDE OUTSIDE THE CONSTRUCTION LINES AND A TRESTLE WAS ERECTED OVER THE SITE OF THE WALL FOR THE PURPOSE OF EXCAVATING THE FOOTINGS AND HANDLING THE CONCRETE. THE EXCAVATION WAS ACCOMPLISHED WITH A CLAMSHELL BUCKET.

ABOUT 2,000 FEET OF THE WALL HAD BEEN POURED BY JULY, 1925. AT THAT TIME THE EARTHQUAKE OCCURRED WHICH DID SERIOUS DAMAGE AT SANTA BARBARA AND VENTURA, BUT THE WALL REMAINED UNHARMED.

DURING THE STORM OF FEBRUARY, 1926, THE COFFERDAMS AND PORTIONS OF THE CONSTRUCTION TRACK WERE WASHED AWAY AND OPERATIONS WERE DELAYED FOR THREE WEEKS UNTIL THE HIGH-TIDE PERIOD WAS PASSED. AT THAT TIME 50 PER CENT OF THE NORTHERLY AND ALL OF THE SOUTHERLY WALL WERE COMPLETED, BUT NO BACK FILLING HAD BEEN PLACED. THE SAND BEACH WAS WASHED AWAY TO THE UNDERLYING SHALE AT ONE POINT, BUT THERE WAS NO SCOURING OF THE SHALE AND NO DAMAGE DONE TO THE WALL.

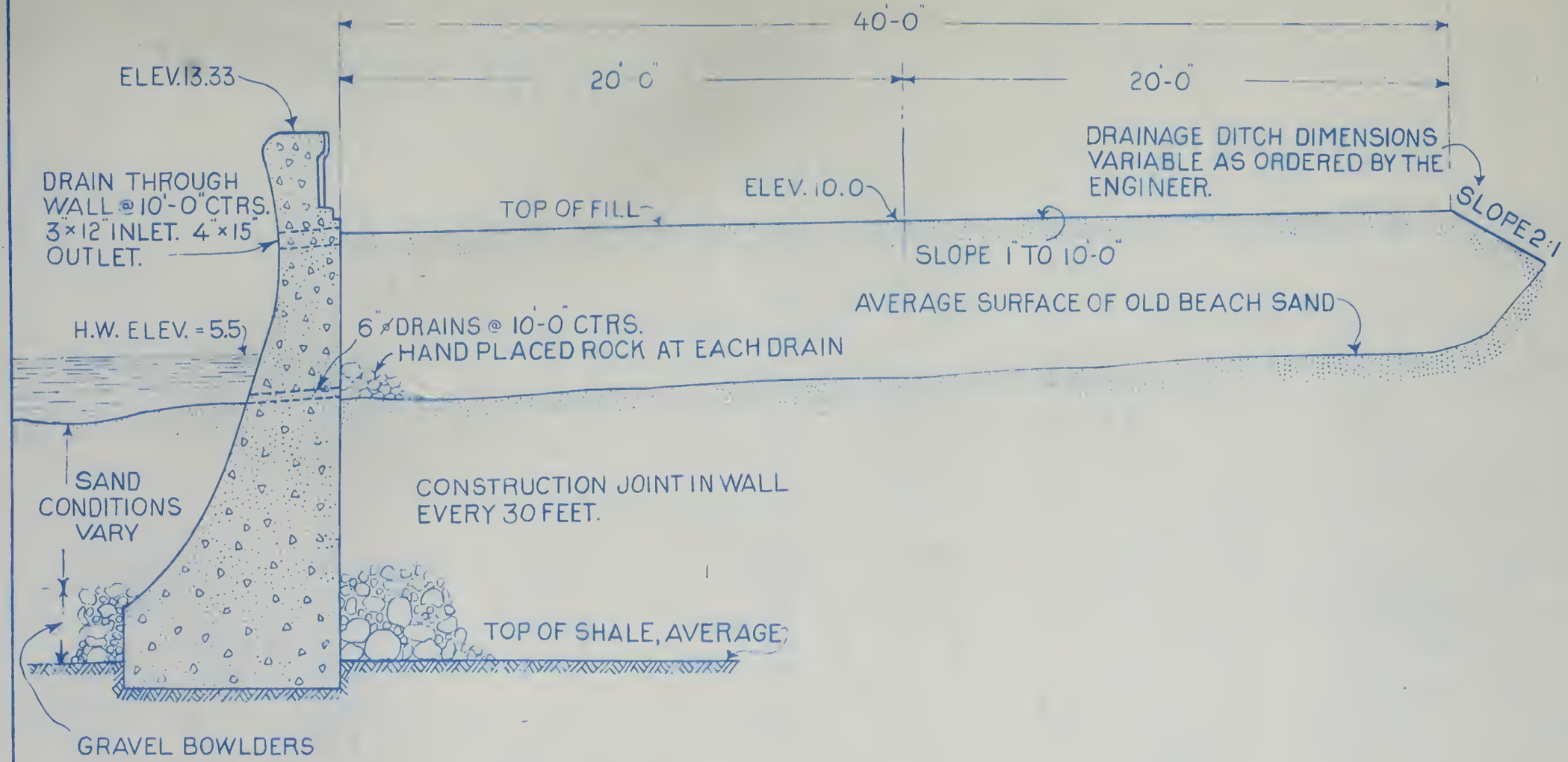


FIGURE 8 - TYPICAL CROSS SECTION OF SEA WALL AS DESIGNED BY THE CALIFORNIA HIGHWAY COMMISSION

SCALE 1" = 6'

THE SINGLE-TRACK MAIN LINE OF THE SOUTHERN PACIFIC RAILROAD WAS LOCATED ON THE STEEP SLOPE ABOVE THE ORIGINAL TIMBER TRESTLES. THE REPLACEMENT WALLS WERE LOCATED TO PERMIT DOUBLE-TRACKING OF THE RAILROAD AND ALSO ALLOW SPACE FOR A 40-FOOT HIGHWAY.

THE CONTRACT PRICE FOR THE CONCRETE ON THE FEDERAL-AID SECTIONS OF THE SEA WALL WAS $17.40 PER CUBIC YARD, OR APPROXIMATELY $51.60 PER LINEAL FOOT OF WALL, NOT INCLUDING THE CULVERTS AND BACK FILLING.

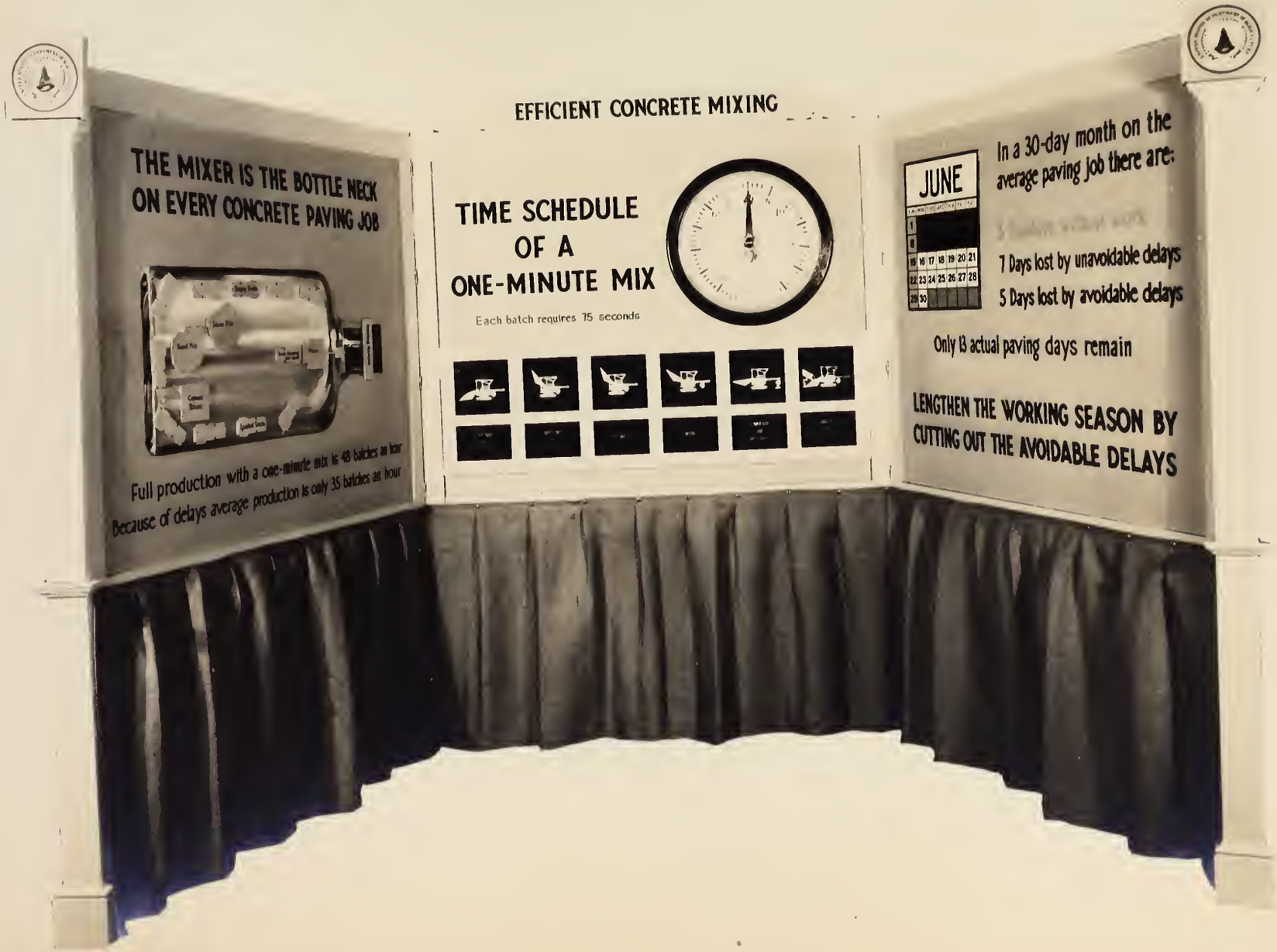
DURING THE PROGRESS OF THE WORK THE ROAD WAS KEPT OPEN TO TRAFFIC. THIS WAS ACCOMPLISHED BY ROUTING THE TRAFFIC OVER THE OLD TRESTLE UNTIL THE WALL AND THE SAND BACK FILLING WERE COMPLETED. THEN WORKMEN REMOVED ONE-HALF OF THE FLOORING OF THE TRESTLE WHILE ONE-WAY TRAFFIC USED THE OTHER HALF. A TEMPORARY CRUSHED ROCK SURFACE WAS THEN BUILT OVER THE BACK FILLING WHERE THE FLOORING HAD BEEN REMOVED. AFTER THIS THE BALANCE OF THE TRESTLE WAS REMOVED MAKING ROOM FOR THE CONSTRUCTION OF A PERMANENT SURFACING EVENTUALLY.

THE TRAFFIC COUNTS ON THE PROJECT IN JANUARY, 1925, SHOWED 3,800 VEHICLES ON SUNDAY AND 1,583 ON MONDAY. A SIMILAR COUNT ON SUNDAY, JULY 18, 1926, TOTALED 5,055 VEHICLES, AND ON MONDAY, JULY 19, 3,167 VEHICLES.

COOPERATIVE SUBGRADE SOIL RESEARCH AGREEMENT WITH OHIO STATE UNIVERSITY EXTENDED

THE EXISTING COOPERATIVE RESEARCH AGREEMENT WITH THE OHIO STATE UNIVERSITY HAS BEEN EXTENDED FOR ANOTHER YEAR UNTIL JANUARY, 1928. THE ORIGINAL AGREEMENT INVOLVED THE FIELD STUDY OF SUBGRADE SOILS. THE ADDITIONAL WORK INCLUDES THE COMPARISON OF ACTUAL ROAD CONDITIONS CAUSED BY VARIOUS AMOUNTS OF FROST HEAVING AS WELL AS THE CONDITION OF ROAD SURFACES ON SOILS HAVING A HIGH SLAKING VALUE. THE STUDIES CONTEMPLATE AN ATTEMPT TO DETERMINE A BASIS OF CORRECTION FOR THE EFFECT OF THE COARSE FIELD MATERIAL WHICH IS DISCARDED IN MAKING THE LABORATORY TESTS.

THE OHIO PROGRAM ALSO PROVIDES FOR AN INVESTIGATION OF THE INFLUENCE OF SOIL TYPES AND CHARACTERISTICS ON ROAD FAILURES AND THE DETERMINATION OF THE RELATIVE EFFICIENCY OF SEVERAL TYPES OF SUBGRADE TREATMENTS AND SUBBASES AS CORRECTIVE MEASURES ON ADVERSE SUBGRADE SOILS.


EFFICIENT CONCRETE MIXING
THE MIXER IS THE BOTTLE NECK ON EVERY CONCRETE PAVING JOB
Full production with a one-minute mix is 48 batches an hour
Because of delays average production is only 35 batches an hour
TIME SCHEDULE OF A ONE-MINUTE MIX
Each batch requires 75 seconds
JUNE
In a 30-day month on the average paving job there are:
7 Days lost by unavoidable delays
5 Days lost by avoidable delays
Only 13 actual paving days remain
LENGTHEN THE WORKING SEASON BY CUTTING OUT THE AVOIDABLE DELAYS

THREE-ARCHED REINFORCED CONCRETE BRIDGE IN NORTH CAROLINA TO BE TESTED TO DESTRUCTION

PREPARATIONS ARE UNDER WAY TO MAKE A COMPLETE STRESS INVESTIGATION OF THE SWIFT ISLAND REINFORCED CONCRETE BRIDGE ACROSS THE YADKIN RIVER IN NORTH CAROLINA BETWEEN ALBEMARLE AND MT. GILEAD. THE BRIDGE, WHICH WAS BUILT IN 1922 AS A FEDERAL-AID STRUCTURE, CONSISTS OF THREE OPEN-SPANDREL ARCH SPANS OF ABOUT 150 FEET EACH AND FOURTEEN T-BEAM OR DECK-GIRDER SPANS OF APPROXIMATELY 40 FEET EACH. THE OVER-ALL LENGTH FROM FACE TO FACE OF THE END BENTS IS 1,069 FEET.

THERE IS NOW UNDER CONSTRUCTION A FEW MILES BELOW THE BRIDGE SITE A DAM WHICH WHEN COMPLETED WILL CAUSE THE IMPOUNDED WATER TO ENTIRELY SUBMERGE THE EXISTING BRIDGE. THE ABANDONMENT OF THE STRUCTURE AND ITS REPLACEMENT BY A NEW BRIDGE AT A POINT ABOVE THE HIGH-WATER LEVEL MAKES POSSIBLE WHAT MAY PROVE TO BE ONE OF THE MOST EXTENSIVE INVESTIGATIONS OF REINFORCED CONCRETE ARCH STRESSES EVER UNDERTAKEN.

ARRANGEMENTS HAVE BEEN MADE FOR THE SAME AGENCIES WHO WERE RESPONSIBLE FOR THE CONSTRUCTION OF THE BRIDGE - THE NORTH CAROLINA STATE HIGHWAY COMMISSION AND THE BUREAU - TO CONDUCT THE INVESTIGATION ON A COOPERATIVE BASIS. THE INVESTIGATION MAY BE MADE, HOWEVER, TO YIELD RESULTS OF GREAT VALUE TO THE ENGINEERING PROFESSION AND FOR THIS REASON IT WILL UNDOUBTEDLY BE OF CONSIDERABLE INTEREST TO A NUMBER OF ENGINEERING AND TECHNICAL ORGANIZATIONS. MOREOVER, THE ADVANTAGE OF SECURING THE ACTIVE COOPERATION OF THESE ORGANIZATIONS IN THE PROSECUTION OF THE UNDERTAKING IS REALIZED. FOR THESE REASONS IT IS PROPOSED TO ORGANIZE AN ADVISORY COMMITTEE, MADE UP OF REPRESENTATIVES OF THE INTERESTED ORGANIZATIONS TO TAKE CHARGE OF THE TECHNICAL DIRECTION OF THE WORK, NAMELY:

UNIVERSITY OF NORTH CAROLINA
NORTH CAROLINA STATE COLLEGE
AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
AMERICAN RAILWAY ENGINEERING ASSOCIATION
AMERICAN CONCRETE INSTITUTE
HIGHWAY RESEARCH BOARD
BUREAU OF STANDARDS
AMERICAN SOCIETY FOR TESTING MATERIALS.

IT IS BELIEVED THAT THE RESULTS SECURED WILL PROVE TO BE SUCH AN IMPORTANT CONTRIBUTION TO SCIENCE AS TO JUSTIFY THE PARTICIPATION OF THESE ORGANIZATIONS.

BRIEFLY, THE PROPOSED SCHEME OF ORGANIZATION IS AS FOLLOWS: THE ADVISORY COMMITTEE WILL FORMULATE THE TEST PROGRAM AND WILL ASSUME DIRECTION OF THE WORK FROM THE TECHNICAL STANDPOINT, THROUGHOUT THE PROGRESS OF THE INVESTIGATION. THE EXECUTION OF THE PROGRAM WILL BE FINANCED BY AND BE UNDER THE IMMEDIATE DIRECTION OF THE NORTH CAROLINA STATE HIGHWAY COMMISSION AND THE BUREAU, THE RESULTS WILL BE PUBLISHED BY THESE TWO AGENCIES AND WILL BE AVAILABLE FOR PUBLICATION AT THE SAME TIME BY ANY OF THE ORGANIZATIONS REPRESENTED ON THE ADVISORY COMMITTEE. NO FUNDS ARE AVAILABLE FOR PAYING SALARIES AND TRAVELING EXPENSES OF MEMBERS OF THE ADVISORY COMMITTEE AND THESE DISBURSEMENTS WILL BE BORNE BY THE COOPERATING ORGANIZATIONS.

ALTHOUGH EACH ORGANIZATION WHOSE COOPERATION IS DESIRED IS BEING ASKED TO APPOINT ONLY ONE OFFICIAL REPRESENTATIVE ON THE ADVISORY COMMITTEE, IT IS NOT THE INTENTION NECESSARILY TO LIMIT PARTICIPATION TO THE OFFICIAL REPRESENTATIVE ONLY. THE ADVICE AND ASSISTANCE OF OTHER MEMBERS OF THE COOPERATIVE ORGANIZATIONS, WHO MAY HAVE AN INTEREST IN THE WORK, WILL BE APPRECIATED AND SUCH MEMBERS WILL ALWAYS BE WELCOME AT COMMITTEE MEETINGS.

THE PERIOD DURING WHICH THE LOADING TESTS MAY BE CARRIED ON WILL BE LIMITED TO THE INTERVAL BETWEEN THE TIME WHEN IT WILL BE POSSIBLE TO CLOSE THE BRIDGE TO TRAFFIC AND THE TIME WHEN THE BRIDGE WILL BE SUBMERGED BY THE WATER IMPOUNDED BY THE DAM. WITH THIS TIME LIMITATION IN VIEW, IT WILL BE NECESSARY TO MAKE VERY COMPLETE PRELIMINARY ARRANGEMENTS FOR THE WORK.

SPECIAL PIER DESIGN TESTS TO BE MADE SHORTLY

Contributed by the Division of Tests

Tests will be made by the Bureau shortly to determine the adequacy of several special bridge-pier designs for use along the Gulf Coast where the severe windstorms cause overturning stresses which involve the anchorage of the steel reinforcement for the entire distance down to the foundation piling. The tests were brought about by the necessity of arriving at a rational and safe design for Federal-aid bridges which have been proposed for the Gulf region.

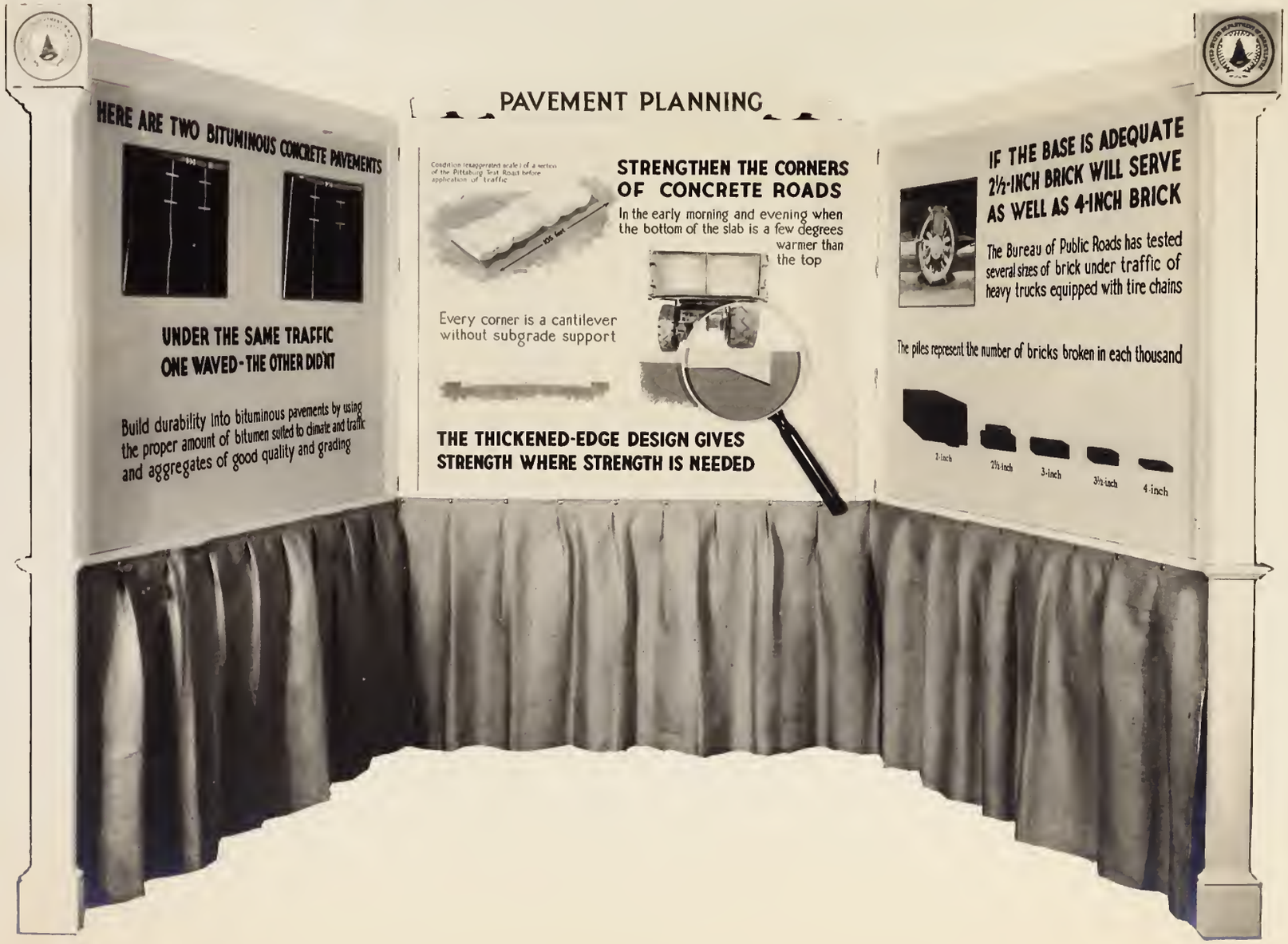
The tests, which are to be made at Arlington, Virginia, are expected to yield information concerning the following points:

1.- The amount of bond stress which is developed between pile heads and concrete foundation seals.

2.- The relative effectiveness of several different designs for anchoring reinforcing steel to pile heads.

The bond stress tests will involve two types of piling: (1) Plain cylindrical piling; and (2) pile heads which have been expanded at the butt by means of wooden wedges.

The anchorage tests are for the purpose of determining the anchorage which is developed by: (1) Hacked bars driven into the pile heads; (2) bars with fox-bolt ends driven into the pile heads; and (3) special steel pile rings designed for the attachment of reinforcing bars.


PAVEMENT PLANNING
HERE ARE TWO BITUMINOUS CONCRETE PAVEMENTS
UNDER THE SAME TRAFFIC
ONE WAVED - THE OTHER DID'NT
Build durability into bituminous pavements by using the proper amount of bitumen suited to climate and traffic and aggregates of good quality and grading
STRENGTHEN THE CORNERS OF CONCRETE ROADS
In the early morning and evening when the bottom of the slab is a few degrees warmer than the top
Every corner is a cantilever without subgrade support
THE THICKENED-EDGE DESIGN GIVES STRENGTH WHERE STRENGTH IS NEEDED
IF THE BASE IS ADEQUATE 2½-INCH BRICK WILL SERVE AS WELL AS 4-INCH BRICK
The Bureau of Public Roads has tested several sizes of brick under traffic of heavy trucks equipped with tire chains
The piles represent the number of bricks broken in each thousand
2-inch
2½-inch
3-inch
3½-inch
4-inch

PORTABLE ASPHALT REPAIR OUTFIT

CONTRIBUTED BY THE DIVISION OF CONSTRUCTION

COMPILED FROM A REPORT SUBMITTED BY A. R. LOSH,
DISTRICT ENGINEER OF DISTRICT 6

A SMALL PORTABLE PLANT IS USED BY THE STATE OF ARKANSAS FOR REPAIRING ASPHALTIC CONCRETE SURFACES. THE OLD BITUMINOUS TOPPING IS SALVAGED AND REHEATED IN THE PLANT AT THE SITE OF THE PATCH. ALTHOUGH THIS METHOD OF SALVAGING OLD ASPHALTIC MATERIAL IS NOT ENTIRELY NEW, THE PORTABLE DEVICE APPEARS TO BE UNIQUE AND INTERESTING (FIGS. 1 AND 2)

WITH THIS SMALL MOBILE PLANT THE HOT MIX IS AVAILABLE AT THE LOCATION OF THE PATCH WITHOUT APPRECIABLE LOSS IN HEAT. THIS IS PERHAPS THE OUTSTANDING ADVANTAGE OF THE PORTABLE PLANT. WHEN HAULED FROM A CENTRAL MIXING PLANT THE MATERIAL TO FORM THE PATCHES IS TAKEN FROM THE SURFACE OF THE LOAD AND THE FREQUENT REMOVAL OF THE CANVAS COVER CAUSES A GREATER LOSS OF HEAT FROM THE SURFACE THAN WHEN THE ENTIRE LOAD IS DEPOSITED IN ONE PLACE.

THE METHOD OF USING THE PORTABLE PLANT CONSISTS IN FIRST BREAKING THE SALVAGED SURFACING INTO PIECES WITH A SLEDGE HAMMER. THESE ARE PLACED IN THE DRUM OF THE MIXER AND HEATED WITH A HOT AIR BLAST. THERE IS THEN ADDED ABOUT ONE PER CENT OF ASPHALTIC CEMENT OF PENETRATION 40 TO 50; AND THE COMPLETELY HEATED MIXTURE IS DELIVERED TO THE PATCH IN WHEELBARROWS. THE ASPHALTIC MIXTURE, AFTER BEING SPREAD, IS COMPRESSED WHILE HOT WITH A HAND ROLLER. A PUP THREE-WHEELED ROLLER WOULD BE OF GREAT ADVANTAGE, BUT IT IS REPORTED THAT VERY GOOD RESULTS ARE BEING OBTAINED WITH THE PRESENT EQUIPMENT.

FIGURE 1. - SALVAGED BITUMINOUS SURFACING MATERIAL READY FOR CHARGING PORTABLE PLANT.

FIGURE 2. - HAND ROLLER. REPAIR GANG AT WORK AND PORTABLE PLANT IN BACKGROUND.

PROGRESS OF FEDERAL HIGHWAY LEGISLATION

(NOT FOR RELEASE)

NO FURTHER ACTION HAS BEEN TAKEN UPON THE FOLLOWING BILLS MENTIONED IN PREVIOUS ISSUES OF THE NEWS LETTER:

H.R. 14254 - C. C. DOWELL, IOWA
14565 - SCOTT LEAVITT, MONTANA
14828 - S. S. ARENTZ, NEVADA
14929 - W. F. STEVENSON, SOUTH CAROLINA
15422 - B. C. REECE, TENNESSEE
15669 - C. J. MCLEOD, MICHIGAN
15970 - SCOTT LEAVITT, MONTANA
16464 - E. E. DENISON, ILLINOIS
16777 - O. B. BURTNESS, NORTH DAKOTA
S. 4675 - C. DUPONT, DELAWARE

TWO BILLS HAVE RECENTLY BECOME ACTS, AS FOLLOWS:

H.R. 14827 - INTERIOR DEPARTMENT APPROPRIATION BILL
15008 - AGRICULTURAL DEPARTMENT APPROPRIATION BILL

IN ADDITION TO THESE, NEW BILLS HAVE BEEN INTRODUCED AND ACTION HAS BEEN TAKEN ON THOSE ALREADY INTRODUCED AS FOLLOWS:

H.R. 16249 - WAR DEPARTMENT APPROPRIATION BILL. INTRODUCED IN THE HOUSE ON JANUARY 13. THE AMENDED BILL HAS PASSED BOTH HOUSES AND ON FEBRUARY 19 WAS SENT TO THE PRESIDENT FOR SIGNATURE. AS PASSED, THE BILL PROVIDES $1,000,000, INSTEAD OF THE $700,000 OF THE ORIGINAL BILL, FOR THE CONSTRUCTION, REPAIR AND MAINTENANCE OF ROADS, TRAMWAYS, FERRIES, BRIDGES AND TRAILS IN THE TERRITORY OF ALASKA. THE $15,000 FOR REPAIRS TO ROADWAYS TO NATIONAL CEMETERIES CONSTRUCTED BY SPECIAL AUTHORITY OF CONGRESS REMAINS UNCHANGED.

H.R. 16462 - URGENT DEFICIENCY APPROPRIATION BILL. INTRODUCED IN THE HOUSE ON JANUARY 19. BILL AS AMENDED PASSED BOTH HOUSES, AND ON JANUARY 29, WAS SENT TO CONFERENCE. THE CONFERENCE REPORT MADE RECOMMENDATIONS AS TO CERTAIN AMENDMENTS AND LEFT OTHERS IN DISAGREEMENT. ON FEBRUARY 3, THE BILL WAS RECOMMITTED. THE FINAL CONFERENCE REPORT WAS PRESENTED AND AGREED TO BY THE HOUSE ON FEBRUARY 22.
PROVIDES AN APPROPRIATION OF $1,400,000 FOR FOREST ROADS AND TRAILS, BEING THE REMAINDER OF THE SUM OF $7,500,000 AUTHORIZED TO BE APPROPRIATED FOR THE FISCAL YEAR 1927.

H.R. 16551 - Introduced in the House on January 21, by W. A. Oldfield of Arkansas, and referred to the Committee on Roads. Referred to the Committee on Interstate and Foreign Commerce on February 3. Amended and passed the House, February 21. Referred to the Senate Committee on Agriculture and Forestry February 22.
Provides that existing Federal-aid road legislation be so amended as to permit Federal aid to be granted, on the same basis as in the construction of a free bridge, to any toll bridge and approaches thereto, constructed by a State, county or other political subdivision; provides that all tolls, less maintenance costs, shall be applied to the repayment of the portion of the cost paid by the State, county or other political subdivision, and that when this is accomplished the tolls shall cease and the bridge shall thereafter be free. The Committee on Interstate and Foreign Commerce reported a substitute bill to require operation by the State or the political subdivision, and added a new section making the provisions apply to approach roads to any toll bridge or toll ferry. This section was ruled out by the Speaker of the House on a point of order, and the substitute bill minus this section was passed.

H.R. 16576 - Appropriation bill for the Departments of State, Justice, Commerce and Labor. Introduced in the House on January 22. Passed both Houses, with amendments, and on February 22, the bill was sent to the President for signature. Bill as passed provides $40,000 (original bill, $30,000) for road construction work in Alaska under the Bureau of Fisheries.

H.R. 17250 - Introduced in the House on February 19, by A. M. Wyant of Pennsylvania and referred to the Committee on Civil Service. The bill would change the name of the Department of the Interior to the Department of Public Works and Domain, and provides for the reorganization and more effective coordination of the public works functions of the Federal Government in said department. Under the reorganization scheme proposed the Bureau of Public Roads, with the exception of the Division of Agricultural Engineering, would be transferred to the new Department of Public Works and Domain.

H.J. Res. 329 - Introduced in the House on January 10, by J. C. Linthicum of Maryland, and referred to the Committee on Foreign Affairs. Passed by the House without amendment on January 17. Reported out without amendment by the Senate Committee on Foreign Relations, January 18. Passed over without consideration by the Senate on February 2 and 7.
Provides for an authorization of $15,000 for the expenses of participation by the United States in the Second Pan-American Conference on Highways at Rio de Janeiro.

S. 3889 - Introduced in the Senate by E. B. Mayfield and passed Senate, January 7. Reported with amendment by House Committee on Interstate and Foreign Commerce on February 16. Would authorize the Railroad Commission of Texas and the Corporation Commission of Oklahoma to regulate tolls over certain bridges across the Red River. The House Committee amendment is in the nature of a substitute bill authorizing the Secretary of War to prescribe rates of toll over highway bridges across the Red River between Oklahoma and Texas.

S. 4530 - Introduced in the Senate on June 23, 1926, by T. L. Oddie of Nevada, and referred to the Committee on Post Offices and Post Roads. Reported out without amendment on February 4, 1927. (Passed over by the Senate without consideration February 4, 1927). The bill makes three provisions: (1) It amends existing Federal-aid road acts to permit under certain conditions increased Federal aid on projects in public-land States to any percentage up to and including the total cost, with the proviso that the aggregate of the Federal aid allotted on projects approved during any fiscal year for construction in any State shall not exceed the pro rata heretofore payable in such State under the provisions of the law; (2) It further amends these acts to make $20,000 the minimum year's allotment of Federal aid for forest roads in any State; (3) It amends the Post Office Department appropriation act approved June 19, 1922, to allow increased Federal aid on projects involving construction in mountainous, swampy or flood lands on which the average cost per mile for the grading and drainage structures other than bridges of more than 20 feet clear span will exceed $10,000 per mile, and also in the case of any project which, by reason of density of population or character and volume of traffic, the State highway department and the Secretary of Agriculture may determine should be improved with a surface of greater width than 18 feet.

S. 4602 - Introduced in the Senate on December 7, 1926, by T. L. Oddie of Nevada and reported out without amendment from the Committee on Post Offices and Post Roads on February 4, 1927. Bill passed over without consideration on February 7. Provides: (1) That the shield or other insignia of the United States shall not be used as a highway marker except by the State highway departments or the U. S. Department of Agriculture; (2) that not more than 60 per cent of all Federal aid allotted to any State shall be spent on the primary or interstate highways until provision has been made for the improvement of the entire system.

S. 4933 - Introduced in the Senate on December 20, 1926, by Hiram Bingham of Connecticut. The amended bill passed both Houses and on February 18, was sent to the President for signature. The bill as passed would authorize the appropriation of $100,000, from the Treasury to enable the Secretary of Agriculture to construct, reconstruct and maintain public highways in the Virgin Islands. The original bill applied only to the Island of Saint Thomas. No moneys appropriated under the authorization contained in this act shall be expended for construction, reconstruction, or maintenance of any highway until suitable contracts have been made by all owners of lands adjoining such highway with the Secretary of Agriculture, whereby such owners agree that they will sell at least one-half of such lands to actual settlers.

S. 5031 - Introduced in the Senate on January 3, by R. H. Cameron of Arizona, and referred to the Committee on Post Offices and Post Roads. Reported out without amendment on February 16. Provides for the creation of a Pan-American Peoples Great Highway Commission whose duty will be to locate the most feasible highway route from Canada, through the United States, Mexico, and Central and South America. To carry on the work $200,000 is authorized to be appropriated.

S. 5717 - Introduced in the Senate on February 15, 1927, by G. H. Moses of New Hampshire and referred to the Committee on Post Offices and Post Roads.
Authorizes the appropriation of funds for the construction of a highway from Red Lodge, Montana, to the boundary of the Yellowstone National Park, near Cooke City, Montana. (This bill is identical with H.R. 15970).

S. 5730 - Introduced in the Senate on February 15, 1927, by J. E. Watson of Indiana and referred to the Committee on Interstate Commerce.
Would regulate interstate commerce by motor vehicles operating as common carriers of persons on the public highways. Would put such carriers under the jurisdiction of the State board, either singly or in cooperation with the boards of other States, or with the Interstate Commerce Commission, with final authority vested in the Commission.

S. 5776 - Introduced in the Senate on February 17, by G. W. Norris of Nebraska and referred to the Committee on Post Offices and Post Roads.
This bill contains the same provisions as H.R. 16551, as reported out by the House Committee on Interstate and Foreign Commerce, including Section 2, except that it makes no mention of toll ferries.